

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR2004/002126

**A. CLASSIFICATION OF SUBJECT MATTER****IPC7 H01L 33/00**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Patents and applications for inventions, since 1975

Korean Utility models and applications for Utility models, since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 03/007390 A1 ( NICHIA CORPORATION ) 23 JANUARY 2003 see the embodiment 6-8, figures 6-8	1-21
A	US 2003/62530 A1 ( KABUSHIKI KAISHA TOSHIBA ) 3 APRIL 2003 see the whole document	1-21
A	US 6291839 B1 ( LUMILEDS LIGHTING, U.S. LLC. ) 18 SEPTEMBER 2001 see the whole document	1-21
P, A	KR 423185 B ( EPIVALLEY CO., LTD. ) 04 MARCH 2004 see the claim 1, figures 3, 5	1-21

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

24 DECEMBER 2004 (24.12.2004)

Date of mailing of the international search report

**27 DECEMBER 2004 (27.12.2004)**

Name and mailing address of the ISA/KR



Korean Intellectual Property Office  
920 Dunsan-dong, Seo-gu, Daejeon 302-701,  
Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

KIM, Dong Yup

Telephone No. 82-42-481-5749



## INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2004/002126

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 03/007390 A1	23.01.2003	TW 558847 B	21.10.2003
		US 2004026702 AA	12.02.2004
		EP 1406314 A1	07.04.2004
US 2003/62530 A1	03.04.2003	JP 2000196152 A	14.07.2000
		JP 3469484 B2	25.11.2003
		US 6495862 BA	17.12.2002
US 6291839 B1	18.09.2001	GB 9921483 A0	17.11.1999
		GB 2341488 A1	15.03.2000
		CN 1247997 A	22.03.2000
		DE 19927945 A1	23.03.2000
		KR 2000023055 A	25.04.2000
		KR 423185 B	04.03.2004
		JP 2000091639 A2	31.03.2000
		TW 461120 B	21.10.2001
		US 6258618 BA	10.07.2001
KR 423185 B	04.03.2004	NONE	